

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the above-referenced application.

Listing of Claims:

Claims 1 - 6 (Cancelled)

7. (Currently amended) A method for fabricating a thin film transistor, comprising the steps of:

forming a semiconductor layer on a substrate,

forming a cooling layer on said semiconductor layer, said cooling layer having
~~with~~ a higher heat conductivity than that of said semiconductor layer ~~on said~~
~~semiconductor layer,~~

patterning said cooling layer,

irradiating said semiconductor layer and said cooling layer with an energy beam,

and

removing at least a portion of said cooling layer.

Claims 8 - 11 (Cancelled)

12. (New) The method of claim 7, wherein said semiconductor layer includes a drain region, a channel region and a source region.

13. (New) The method of claim 7, wherein said cooling layer is patterned so as to be locally close to at least one of said drain region, said channel region and said source region.
14. (New) The method of claim 7, wherein said cooling layer has a light-shading property.
15. (New) A thin film transistor, comprising:
 - a semiconductor layer disposed on a substrate, said semiconductor layer including a drain region, a channel region and a source region;
 - a cooling layer disposed on said semiconductor layer, said cooling layer having a higher heat conductivity than that of said semiconductor layer;
 - wherein said cooling layer is patterned and at least a portion of said cooling layer is removed from said semiconductor layer.
16. (New) The transistor of claim 15, wherein a part of said semiconductor layer is a single crystal layer and another part is a non-single crystal layer.
17. (New) The transistor of claim 16, wherein said non-single crystal layer part is a size-controlled crystal grain region.
18. (New) The transistor of claim 15, wherein said cooling layer is patterned so as to be locally close to at least one of said drain region, said channel region and said source region.
19. (New) The transistor of claim 15, wherein said cooling layer has a light-shading property.